

The Warmth of Log Homes

A radiant system provides invisible heat, which makes it an ideal choice to warm log homes.

By Kelly Faloon

When Dave Cutrell made the commitment to build a house instead of buying one, he looked at a log home as an option. The day he walked into a model log home, he was hooked.

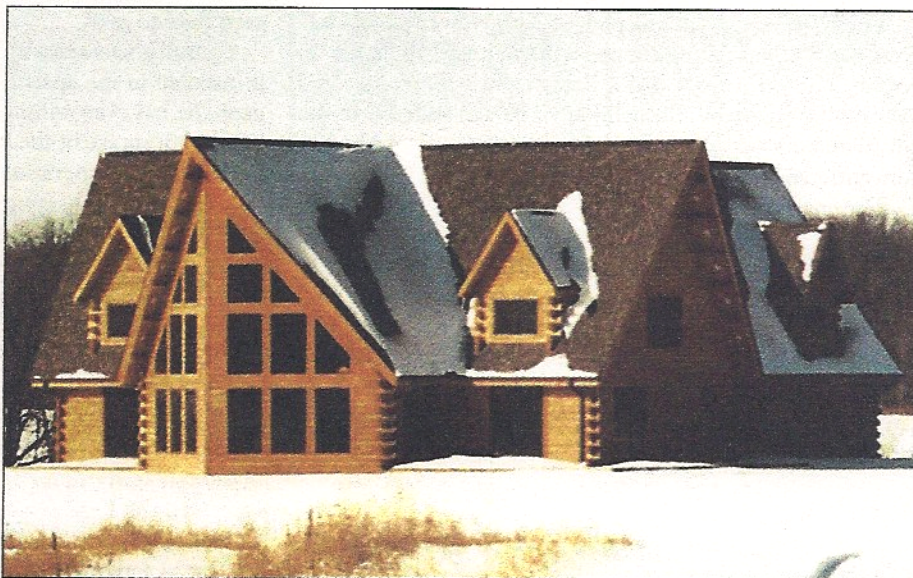
"It struck me right away that there was something different in this house, something other than the log walls," Cutrell says. "It was the damndest feeling."

What he felt was radiant floor heat — a heating system that heats the objects in a room, but not the air, thereby providing a more even heat.

"I had always heard about radiant heat," he says. "In fact, watching 'This Old House' had a major influence. I learned quite a bit on radiant heating systems from Richard Trethewey on that show."

ABOVE: Comfort is the reason that Dave Cutrell chose radiant heat for his home.

BELOW: Larry Miller's radiant system is powered by a high-performance water heater.



Warmth of Log Homes

A visit to the Boston home show to look at radiant heating systems and boilers clinched the deal for Cutrell's Mendon, Mass., home.

"It was not a tough sell," he admits.

However, it was hard work to get exactly what Cutrell wanted for his home. He took a basic log home software package, put the schematics on a CAD system and designed the home to his specifications.

"Log homes are not the easiest to build," Cutrell says. "It took some doing; I made four revisions to the plans before it all worked out."

The general contractor on the job, Hackenson Corp., referred the radiant heating and plumbing installation to Tim Cutler, president of TJ's Plumbing & Heating (www.tjsradiantheating.com) located in Attleboro, Mass. Cutler and a co-worker installed the radiant system in the three floors of Cutrell's home in about three weeks. Nearly one third of the home's 6,000 square feet was fitted for radiant heat.

"Radiant is the best heating system available because it's always comfortable," Cutler says. And he should know; he has radiant heat installed in his own home.

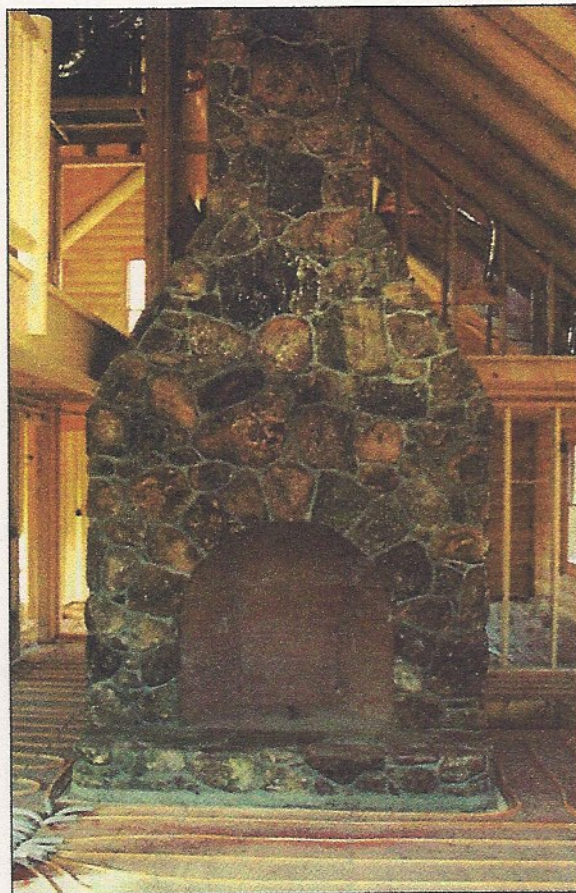
The basement floor was poured with conventional concrete over radiant tubing clipped to foam board 10 inches on center. The main floor had a lightweight concrete poured over tubing clipped to the subfloor. Tile was added over the entire main floor. The second-floor system was attached to conventional baseboard.

The energy to heat the home is provided by a fuel-oil boiler. A 2,000-Btu heat exchanger will be installed to heat the 20-foot-by-40-foot swimming pool.

The only difficulty Cutler had in the house occurred with the plumbing, not the heating system. Because the logs were not dry when the house was constructed, Cutler had to accommodate for settling. As the logs dried, they would shrink, so Cutler had to account for the house settling up to 1½ inches. Expansion joints in the piping solved the problem.

Fun living

Cutrell has gone through one winter in his radiant-heated home, and he loves it.



The main floor of the Cutrell home in Mendon, Mass., has tile over the radiant heat tubing.

"My son and I have allergies," he says. "The beauty of a radiant heating system is that the air is clean. You feel healthier because there is a lot less dust and bacteria to trigger allergies and colds."

Another plus is how aesthetically pleasing such a heating system is; with no ductwork, there aren't any registers to distract the eye.

But it's the comfort factor that sells.

"The evenness of heat is remarkable," Cutrell says. "There's no freeze/fry situation like you have with forced-air systems. You are totally comfortable in every room no matter what time of day."

When Cutrell told his houseguests to take off their shoes this past winter, they gave him dumbfounded looks and thought he

was joking. But they soon found out how comfortable the house was, even barefooted.

"The entire main floor is tile, so when I told people to take their shoes off, it freaked them out," Cutrell explains. "Now when I have a party, everyone takes their shoes off. I don't even have to ask!"

Cutrell is so taken with radiant heat that he is going to have it installed in the apartment above his garage. An oral surgeon, he has even considered moving his office to his home to take advantage of the home's comfort level.

"I would never consider another type of heating system," he says. "Radiant heating makes living fun."

A comfortable trend

Heating log homes is one of the best applications for radiant heat, says Shelter Specialties & Supply Co. (Huntertown, Ind.) owner Scott Patton. "Most log homes have an open ceiling with exposed beams and planks, which is a challenge for standard methods of mechanical systems. Wood sleepers with PEX tubing is a great solution."

Patton used this method when installing a radiant heating system in the Portland, Ind., log home of Larry Miller. The three-level, 10,308-square-foot home took about three weeks for Patton and two of his installers to put in the heating system.